

6th Grade

Main Rangefinder 1

It is important that you explain and show how you solved the problems on this assessment. If you use a calculator, show how you set up the math.

- 1 Mrs. Smith's class of 24 students has earned a pizza party. They have \$75 pizza and pop.



One topping pizza = \$7.50 Six pack pop = \$1.25

Minimal evidence of understanding of situations

- a. If each pizza has eight slices, and each student wants 3 slices, how many pizzas will they need? Show or explain how you found your answer.

11 pizza They will need

$$\begin{array}{r} 8 \\ +3 \\ \hline 11 \end{array}$$

- b. If each student wants one can of pop, how many six packs of pop will they need? Show or explain how you found your answer.

They will need 4 six packs of pop

$$\begin{array}{r} 6 \\ 6 \\ 6 \\ 6 \\ +6 \\ \hline 24 \end{array}$$

- c. The class decides to buy enough for 3 slices of pizza and one can of pop for each student. What will be the total cost for the pizza party and how much change will Mrs. Smith's class receive from the \$75.00? Show or explain how you found your answer.

They will get 40 dollars

75

-35

back 40

Minimal development of basic skills

- d. If one pizza left and $\frac{5}{8}$ of another pizza left at the end of the party, what fraction of a would be remaining? Show or explain how you found your answer.

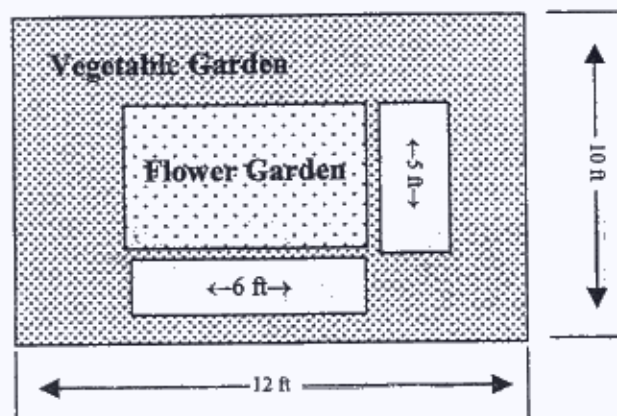
$$\begin{array}{r} 5/8 \\ -1/8 \\ \hline 4/8 \end{array}$$

Numerous computational errors

So they would be 4/0 left

Read problems 2, 3, 4 and 5 on the next few pages. Select three problems to answer. Answer ALL of the parts of the three problems you select to answer. Cross out the one problem that you do not choose to answer.

- ② Lynn is going to put a flower garden in the middle of a vegetable garden.



$$\text{Area} = \text{length} \times \text{width}$$

Minimal development of basic skills

- a. What is the perimeter of the vegetable garden? Show or explain how you found your answer.

The vegetable garden is 7 ft long.

- b. What is the perimeter of the flower garden? Show or explain how you found your answer.

the flower garden is 6 ft long.

- c. How much **total** fencing will Lynn need to buy to fence around each of them? Show or explain how you found your answer.

Minimal problem-solving strategies

13 fence's

$$\begin{array}{r} 7 \\ + 6 \\ \hline 13 \end{array}$$

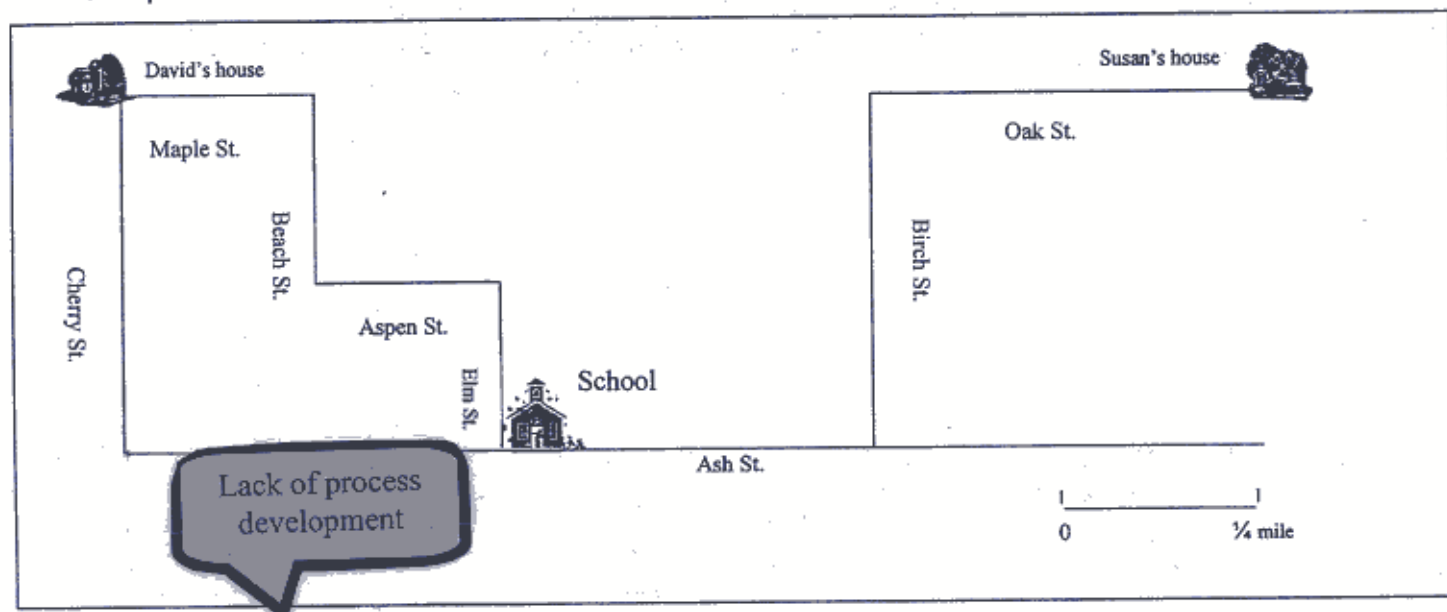
- d. What is the area of the flower garden and what fraction of the total garden area is this? Show or explain how you found your answer.

26

$$\begin{array}{r} 13 \\ 7 \\ + 6 \\ \hline 26 \end{array}$$

Inappropriate processes

- 3 The following is a map of David's and Susan's neighborhood. Use the given scale to answer the questions.



- a. Would it be shorter for David to walk to school using the Cherry Street route or the Maple Street route? Show or explain how you found your answer.

Maple street is the fastest way to school

$$\begin{array}{r} 5 \\ + 5 \\ \hline 10 \end{array} \quad \begin{array}{r} 2 \\ 2 \\ 2 \\ + 3 \\ \hline 9 \end{array}$$

- b. About how far do David and Susan each have to walk to school? Who has the shortest walk to school? Show or explain how you found your answer.

from the first one I did so I figured that David's house is shortest and Susan's house is not.

- c. Susan walks $\frac{1}{4}$ mile in five minutes. School starts at 8:20 AM. What time does she need to leave her house to make it to school on time? Show or explain how you found your answer.

at 8:00 when she leave her house.

Inadequate use of symbols and communication skills

4 Jan's math test scores are 93, 95, 76, 88 and 93.

- What is her average (mean) score? *Show or explain how you found your answer.*
- Using Jan's five test scores, find her median score. *Show or explain how you found your answer.*
- What is the mode of her scores? *Show or explain how you found your answer.*
- Jan really wants a mean score of 90. What is the lowest score she can earn on the next test so that she has a mean score of 90? *Show or explain how you found your answer.*

5 The first three figures of a pattern are:



- Complete the table showing the number of triangles, and the number of sticks required to form them.

Number of Triangles	Number of Sticks
1	3
2	

- How many sticks would be required to make 6 triangles? *Show or explain how you found your answer.*
- How many sticks would be needed to make 25 triangles? *Show or explain how you found your answer.*
- Write the rule that explains the relationship between the number of triangles and the number of sticks needed.